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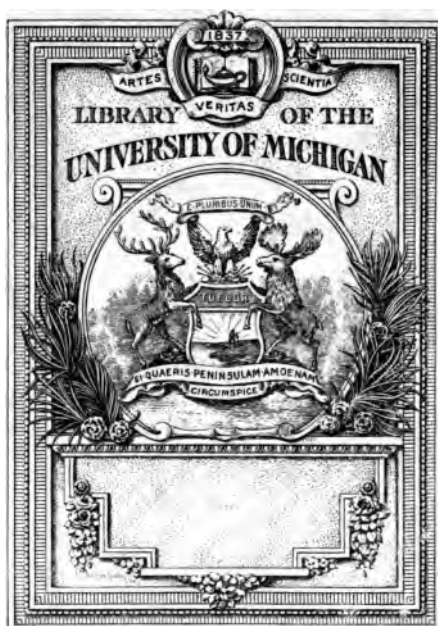
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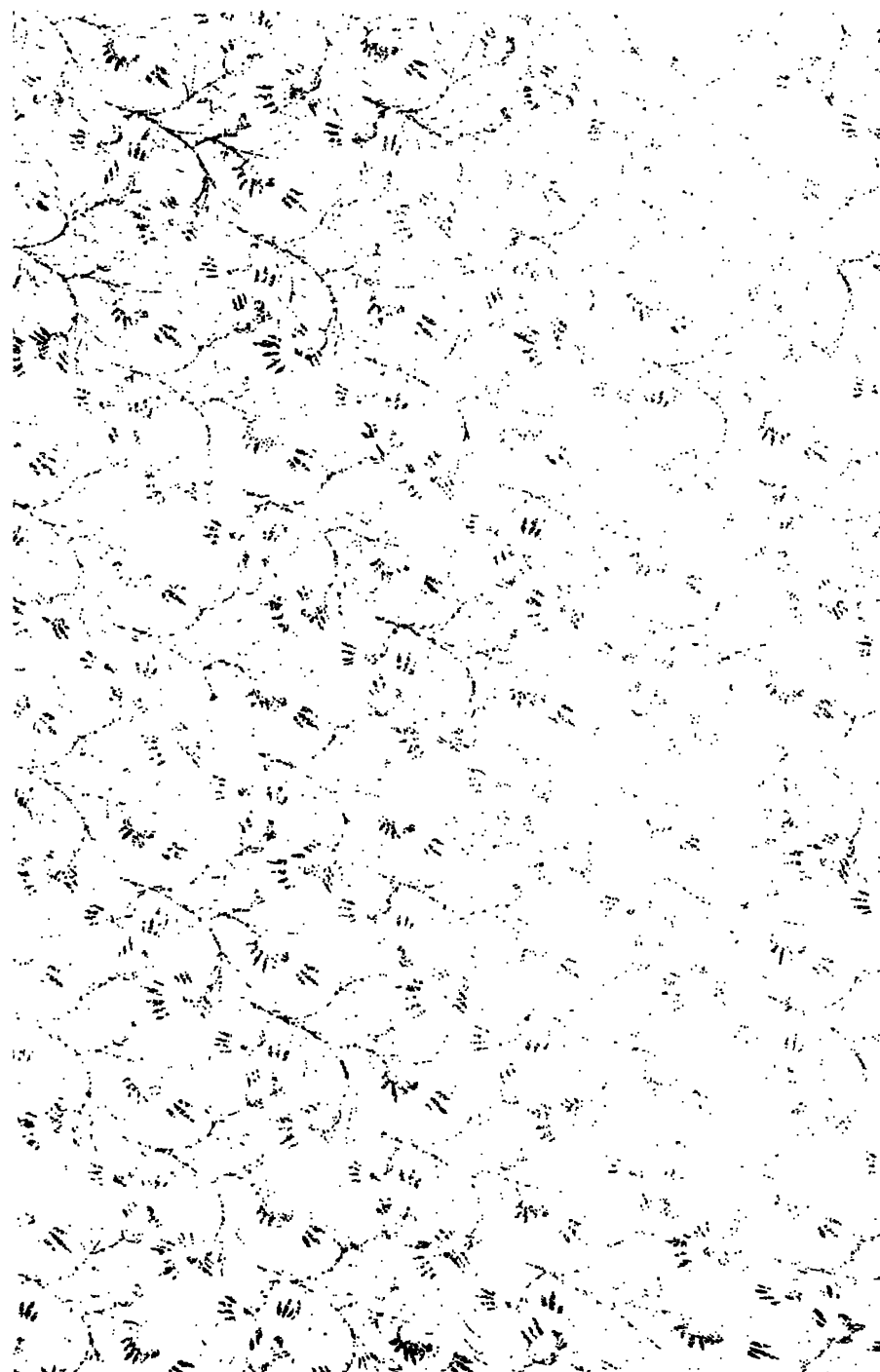
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Best and worst
methods of teaching
Geography -
By J. M. D. Meiklejohn -





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THE BEST & THE WORST METHODS

OF

TEACHING GEOGRAPHY.

A SHORT LECTURE TO SCHOOLMASTERS.

BY


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ON THE BEST AND THE WORST METHODS OF TEACHING GEOGRAPHY.

3 THERE is a subject called Geography, which most schoolmasters, at some time or other of their lives, have been called upon to teach. A great number of books have been written for the purpose of helping them to teach it. If we are asked what Geography is, we find ourselves rather suddenly brought up—we cannot give a clear and distinct answer; but we can always point to the books which treat of the subject. Is it one of the Pure Sciences—like Mathematics? No, not at all. Is it one of the Applied Sciences—like Hydrostatics? Nearer that, perhaps. Is it an Experimental Science—like Chemistry? Certainly not. Is it a Language? No. Is it a part of History? No;—and yet it is of some importance to that study. If we ask further, we are generally told that it is divided into three parts—Mathematical Geography, Physical Geography, and Political Geography. We are, however, never told how it is divided off from the other departments of human knowledge; but that may pass for the present. Mathematical Geography seems to be simply a chapter out of Astronomy; Political Geography is a collection of scraps of political, commercial, and historical facts; and Physical Geography makes the large claim to be the sum and essence of all the Sciences, in so far as the subject-matters of these Sciences conduct their operations, and exhibit their mutual relations on the round globe we all inhabit.

But these three kinds of Geography together make up an enormous subject of study, which is only in small part adapted to the purposes of young people, and which a teacher, however sensible or energetic, may very easily lose his way in. In these more modern times, examinations have taken a pretty tight hold of the schoolmaster; and he is no longer burdened with "the weight of too much liberty," as he used to be. These examinations to some extent set up a goal for the schoolmaster to reach in this subject; and, to some extent, also point out to him the way by which he must travel to reach that goal. He gets to have a pretty correct guess of the kind of questions that will be set; and he drills his pupils in the right answers to these possible questions.

But is he sure, in that case, that he is teaching the subject called Geography to his pupils?

If he is not sure, perhaps he will get some light on the point from the text-books. These will surely keep him straight; these will surely let him know what he is to teach and what to leave untaught. He will make inquiries for the best text-book; and, having discovered that, he will give up his anxieties, deliver himself to the guidance of this best text-book, and go straight on, with ease to himself, and a successful issue to his pupils. But what if this guide, philosopher, and friend plays him false? What if he leads him into an immense quagmire of facts, and leaves him there? What if he plays the ugliest tricks on the most thorough and conscientious teachers—and the uglier tricks the more conscientious and painstaking they are? What if he tempts such a man to begin the use of a book, which to all human appearance can be worked through in two or three years; and, after it has been begun, it is found that it *cannot* be worked through even in ten? What if he seduces into an antediluvian track a man who has the misfortune to live in a very postdiluvian age? For Geography is not the only subject he has to study. The exacting spirit of the age—aided by Examiners, Parents, Civil Service Commissioners, Newspaper Writers, and other enthusiastic and urgent persons—piles on the back of the poor schoolmaster many other subjects, for which the human day of twelve hours is itself all too short, even if human powers could sustain work through these twelve hours without pause or rest.

The young teacher—we will suppose it is he who is looking about him—inquires for and discovers the best text-book. He is probably directed either to Hughes's Manual,* or to Mackay's Manual. We will take Mackay's, as it happens to be the most elaborate specimen of the kind of book I propose to discuss.

He orders from his bookseller, then, a supply of Mackay's "Manual of Modern Geography" for the senior, and of Mackay's "Elements" for the junior, classes. And he begins his work in good heart. He has got, he is told, the best book; and, if he makes his pupils work faithfully through these books, they will turn out excellent geographers. And so they will. Not the least doubt of it.

But, before a few months are over, he finds out that he has reckoned without his host. Mr. Mackay, he now sees, is going to send him in a most unconscionably long bill for time. He finds that, with two or three hours a week given to Geography, he makes little or no impression on the book. It is much as if he were to make up his mind to read the Encyclopædia Britannica while he is shaving; he has not finished the letter A before he reaches the end of the normal threescore years and ten. He finds he has got into an ocean of facts—is out of sight of land—and has not the dimmest idea by what time he may hope to reach the opposite shore.

He now sits down to make some calculations; which, indeed, he ought to have made before he began. And he begins with the

* Mr. Hughes's Manual is an excellent book for teachers; and there are in it indications of a much better method than anything we find in Mr. Mackay.

Junior Geography—the Elements—as the less appalling task. He observes it to be a very closely printed volume of 297 pages. Knowing that it is his duty to teach the geography of these islands in a tolerably exhaustive style, he accepts without question what is given on this part of the subject, and begins his detailed examination of the work before him at Spain and Portugal, on page 58. Here he ascertains that, in Spain alone, he has to put into the heads of his junior classes, 82 towns and 67 rivers—their names, their position on the map, and a few facts about a number of them. And among these towns he finds the names of such utterly unknown places—the names and nothing mere—as *Lugo, Orense, Ubeda, Caceres, Huelva, Loja, Avila, Logrono, Soria, Antequera, Alcala, Tortosa, Mataro*, and so on. And the sixty-seven rivers include a large number that may be very interesting to Spaniards, but that can surely never rise on the horizon of the historic or other consciousness either of himself or of his pupil. For example, he is to learn himself, and then to teach to his class, such streams as—*Miera, Nervion, Bernesga, Vouga, Xamara, Alcoy*, and about two score more. And all this in addition to what is called the general geography of the country, in addition, moreover, to paragraphs thickly studded with facts about area and population, mountains, lakes, old provinces and new provinces, islands, bays, and straits (luckily there is only one strait that Spain has to do with—and that is one too much for her), climate, minerals, botany and agriculture, zoology, ethnography, languages, religion and education, government and finance, commerce and manufactures, inland communication, and foreign possessions.

But perhaps he will be better off when he comes to *France*. He is rather worse. In that country, which all of us know a little about,—though Spain is an almost *terra incognita*,—he has to get up and to teach the trifling number of 129 towns and 95 rivers. Let me name a few of the towns which the pupil is introduced to by his thorough-going instructor:—*Elbeuf, Chartres, Laon, St. Lo, St. Briec, Montbrison, Libourne, Agen, Auch, Mont-de-Massan, Laval, Gueret, Luçon, Niort, Montignac, Castres, Beziers, Privas, Annonay, Grasse, Tulle, Villefranche, Digne, Annecy, Poligny, Gap, Mezières, Ledan, Lorgues, Epinal, Tourcoing, Roubaix*, and scores of others. Are you tired? You may well be. But, if you are tired with the mere enumeration of these towns once over, how dead-beat must the poor little boy be who has them dinned into his ears—I won't say his head, they can't get a footing there, for there is no mental tag to hang them by—day after day and week after week, only to find that he can't remember them after all. Besides, if to you who have, many of you, travelled in France, it is difficult, if not impossible, to connect an idea or the smallest association with any one of these towns you may have visited (except, perhaps, the length of your hotel bill),—what terrible absurdity it is to expect a young child, ignorant of the world outside his own home and the school walls, to load his memory with a host of mere names, which his memory is utterly incapable of retaining, and which would do him no good even if he

did retain them. The absurdity is past description; it rises to a power that must be indicated by *n* or *x*; but no known words can bring it adequately before our minds.

The young teacher goes on—"sounding on his dim and perilous way." The waters only get deeper. In the little countries of Belgium and Holland, he has to get up 46 towns and 25 rivers and canals; in Prussia, 39 towns; in Austria, 77. The towns in Hungary include such inviting specimens of nomenclature as *Szentes*, *Bekes*, *Czada*, *Miskoltz*, and *Eperies*. And in Austria Mr. Mackay won't let us off a river in which you can catch a trout—the *Katzbach*, the *Bode*, the *Böse*, the *Wipper*, the *Ocher*, the *Sebes-Körös*, the *Hasse*, the *Ahi* (!), the *Itz*, the *Ill*, the *Aa*, the *Lorze*, and the *Elz*. Did you ever hear of these classical streams before? No? Nor I, till I joined this very *Junior Class*. In these six countries alone—Spain, France, Belgium, Holland, Prussia, and Austria—he will have to get up 373 towns.

But when we come to new countries, like South America or the United States, he will be less hard upon us. In these open spaces—in these happy hunting-grounds—we shall at last have leisure to draw breath, to slacken rein, and not to go at so neck-breaking a pace. Well, we must not halloo till we are out of the wood. In the United States I must get up 113 towns, in Brazil 38, in La Plata 16, and in the little half-savage state of Venezuela 18 towns. These countries are but half-known, and contain perhaps one man to the ten square miles; but Mr. Mackay is relentless; you must spread yourself over them with the same exhaustive detail as over the old and thickly-populated countries of Western Europe.

But if Mr. Mackay binds so heavy a burden on the backs of the Junior classes, he is not likely to let off the Seniors with a less exhaustive treatment. And Mr. Mackay's method is exhaustive in every sense of the word. He does his best to exhaust the pupil and the teacher—as well as the subject.

We need not delay so long over the Manual. If the claims he made in the Elements on the available time of both teacher and pupil were extravagant and irrational in the extreme, in the Manual he rises to a pitch of exorbitance which even figures give little idea of. The index contains more than 12,000 names. This says much for the completeness—at least the seeming completeness—of the book; but how does this fact look from the point of view of the school-boy? Let us make the supposition that is most favourable to the claims, the wishes, and the expectations of Mr. Mackay. Let us suppose that the Senior pupil can now get up as much of the geography every week as will involve the learning of the names of 30 places, and that he never forgets one of these 30 places when he learns a new set. Let us suppose that he goes on Göthe's principle,—

Aeltestes bewahrt mit Treue,
Freundlich aufgefasstes Neue.

The old is never forgotten, and the new always meets with a warm welcome. It must be observed that this is a large supposition, as to several thousands of these names not a single fact or idea is

attached. Well, he does an amount of work equal to 30 names a-week; there are 40 weeks in the school year; and he would therefore learn in a year the names of 1200 places, with all the facts that cluster round them. He would therefore take ten years to get through the book.

This is absurd; but the absurdity is one of Mr. Mackay's creating, and I am only trying to analyse the case.

But, gentlemen, the truth is, that no living boy could get up this book even in ten years. Nay, I am strongly inclined to believe that no man, however great his experience of Blue Books, could get it up with complete accuracy. When he had got to the end of the book, he would have forgotten much of the beginning; and so the story of the Danaïdes would be repeated in these modern times, and in a case so apparently trifling as a common school-book. In fact, you would have to put a Committee on it. This Committee should consist of a Captain in the Navy, a Member of the Statistical Society, an Astronomer, an indefatigable Tourist, Dr. Livingstone, Sir Samuel Baker, and some Gazetteer writer. Lock this Committee up in a country-house, give them a clear twelvemonth, with regular exercise, their minds at ease, and no money or other cares to harass them; and I think they could jointly, but not severally—jointly, as a Committee—stand a thorough examination upon it. But one man! He could not do it.

Kein Mensch den alten Sauerteig verdaut!

And a boy! The book is for him a living embodiment of the impossible; he never can get through it.

And even supposing he did, the knowledge would be of small use to him, compared with the enormous amount of time and labour he would have invested in it. He would have his mind, or rather his memory, filled with thousands of words which are to him words and nothing more. In Russia, for example, he would have to learn the names of 346 towns and of 186 rivers. These names contain scores of towns like *Borovsk*, *Potshirki*, *Bobrov*, *Tavrov*, *Pronsk*, *Kasimov*, *Solikamsk*, and *Tcheliabwisk*, about not one of which is a single fact given, to not one of which is a single idea attached; there is nothing at all but their names. But, gentlemen, what do you yourselves know about the towns in Russia? You have "taught" the country over and over again; you may even have travelled in it; and yet I am pretty certain that your knowledge is limited to the names of *St. Petersburg*, *Moscow*, *Ekaterinenberg*, *Sevastopol*, *Odessa*, *Taganrog*, *Toula*, and perhaps two or three more. In the name of common sense and the universally recognized fact of the shortness of human life, what does Mr. Mackay mean by filling up scores of pages of his Geography with lists of mere names, which we never saw before, and which we never shall see again? In the same spirit, he wants us to learn the names and position of more than 360 towns in France, and of 719 towns in England alone (without Wales). We can only suppose that this incessant writer has a craze on the subject of Geography, and that he has been lucky or unlucky enough to find a publisher to let him afflict

schoolmasters and their pupils with an elaborate exhibition of his malady. He reminds me of a passage in the beginning of Swift's *Directions to Servants* :—

“The cook, the butler, the groom, the market man, and every other servant who is concerned in the expenses of the family, should act as if his master's whole estate ought to be applied to that servant's particular business. For instance, if the cook computes his master's estate to be 1000*l.* a year, he reasonably concludes that 1000*l.* a year will afford meat enough, and therefore he need not be sparing; the butler makes the same judgment; so may the groom and the coachman; and thus every branch of expense will be filled to your master's honour.”

Or he has forgotten that we live after, and not before, the Deluge. When Methusalem went to school, Mr. Mackay's little volume might have been his companion for about fifty or sixty years. Let us hope, gentlemen, that, in some future world schoolmasters who have pursued this dry-as-dust method of teaching Geography, may have as a punishment—and this will be sufficient without any other—to get up, without a single error, the whole of this bewildering book,

“*Damnatis poenam pro poenis omnibus unam.*”

He has forgotten Sydney Smith's advice :—

“There is an event recorded in the Bible, which men who write books should keep constantly in their remembrance. It is there set forth that many centuries ago the earth was covered with a great flood, by which the whole of the human race, with the exception of one family, was destroyed. It appears, also, that from thence the longevity of mankind, who, from a range of seven or eight hundred years, were confined to their present period of seventy or eighty years. This epoch in the history of man gave birth to the twofold division of the antediluvian and the postdiluvian style of writing, the latter of which naturally contracted itself into those inferior limits which were better accommodated to the abridged duration of human life and literary labour. Now, to forget this event, to write without the fear of the deluge before his eyes, and to handle a subject as if mankind could lounge over a pamphlet for ten years, as before their submersion, is to be guilty of the most grievous error into which a writer can possibly fall. The author of this book should call in the aid of some brilliant pencil, and cause the distressing scenes of the deluge to be portrayed in the most lively colours for his use. He should gaze at Noah, and be brief. The ark should constantly remind him of the little time there is left for reading; and he should learn, as they did in the ark, to crowd a great deal of matter into a very little compass.”

I can fancy an intelligent boy putting the case to himself in this way :—“I am asked to learn the names and the positions on the map of some hundreds of towns in Russia; and I am not given any distinct information about them—with the exception, perhaps, of thirty. But they, or others like them, are forced on my notice week after week; they make the most urgent calls on my attention, they insist on recognition; but, on the other hand, they refuse to disclose their character, their history, or their business. It is as if some hundreds of gentlemen were to call upon me every week, and send up their cards, with their addresses

and professions marked on perhaps a dozen of them. I tell my servant, the next time they call, to show them up. I should like to see them. Perhaps I might find among them the very man I should most like to know, the very man I want for a friend, the man who could help and love me most of all the men in the world. Show them up! Why won't they come up? Tell them the next time they call how much I want to see them. But my servant tells me he has frequently done so, but that he is constantly met with the coldest refusal. They simply leave their cards. They seem to think it a duty to leave their cards; but not another social step will they take. They leave me in a Tantalus isolation that irritates me to the top of my bent. I may 'burst with ignorance,' but they will do nothing to begin the smallest human relation with me. . . . What must I do? I naturally get sick and disgusted with the whole business, and tell my servant to take no more of their cards,—to put a stop at once to this hollow mockery of acquaintance, and to cut the connection completely."

But it may be said that it is intended that the teacher shall take these names of towns, and make them the theme, the foundation or skeleton of his lesson; and that thus these dry bones will live. But this suggestion is mere fudge. Not one teacher in a thousand could do it; nor has one teacher in a thousand the time to get up the requisite information; while, on the other hand, this process would extend the time required for getting through the book from ten to about thirty years.

But it may be said further, that there is a vast quantity of interesting information and striking detail on many of the towns mentioned. And so there is. But fully one-half of that information is mere gossip—which no man whatever, least of all an educated man, need have in his head. Take a few specimens, not selected, but as the book happened to open:—

"Bradford has colleges for Baptists, Independents, and Wesleyans, and is the principal seat of the worsted-yarn manufacture.—Dessau, a neat little town on the Mulde.—Bernburg, a small industrious town on the Saale.—Newbury, celebrated for its serges and shalloons (whatever these may be).—Kilmarnock, by far the largest town in the county: numerous manufactures.—Cloves, with trade in brewing, tanning, and linen.—Santa Marta, the cap of Magdalena, has a fine cathedral.—Malaga, largely engaged in exporting wine, raisins, &c.—Abbeville, a fortified town, with numerous manufactures.—Szegedin, on the Theiss, a place of great trade."

If I am teaching, then, an "advanced" class, I am to ask, I suppose, such questions as:

- (1) What can you tell me about Bernburg?
- (2) For what is Abbeville noted?
- (3) Can you say anything about Dessau?

And the intelligent pupil will be expected to reply:—*Bernburg is a small industrious, &c.; Dessau is a neat little, &c.*

Of all the humbug that pervades English education, this of a grown Englishman, who has perhaps had a University education, gravely asking a boy for what a place is noted, is surely one of the most preposterous examples. It is just as great a coming-

down for him as to ask the boy what he had for dinner yesterday, or what his father pays a year in taxes. There is a well-known proverb—

“Qui scit ubi sit scientia, habenti est proximus.”

But this, gentlemen, is neither knowledge, nor a preparation for it. It is, in fact, the death of knowledge, the mouldering remains of what may once have been a healthy body.

Science arises by the bringing together of this and that and the other fact, and by drawing conclusions from them; which conclusions are expected to stand the test of all facts that may be afterwards met with. It is that third which is produced from the marriage of this and that. But, in books like these, cart-loads of facts—*rudis indigestaque moles*—are shot down at the feet of the poor little learner; and he is invited either to take them in simply as unconnected and independent facts, or to create the science out of them for himself. Curiosity is the appetite of the mind, and in every child it exists in a stronger or weaker degree. But the banquet provided in such books utterly destroys the natural healthy appetite of the mind—it provides a gigantic “stodge,” which settles for his whole future all question of a dawning desire, on the part of the boy, to know something about the world he lives on.

“Santa Marta has a fine cathedral.” What is the good of making any mortal learn that? What idea of Santa Marta does he get from it? What need has he of having any idea whatever of Santa Marta? Is it a note of any town that it has a cathedral? If the boy knew every town in the world that has a cathedral, what the better would he be? Can any conclusion be drawn from the fact that a town has a cathedral—even if the cathedral is a fine one? Are we to guess whether the cathedral is a Protestant or a Roman Catholic one? Turn the fact as you will, there is nothing in it. Beat out the tinsel to its widest, it is only Dutch metal after all.

The fact is, this kind of knowledge—if it can be called knowledge at all—is mere index-knowledge. And it is almost the only kind of knowledge kept in view in the present miserable methods of teaching geography. It is encouraged, moreover, by the vicious method of making Atlases for Schools. These are in general filled, not with as many towns as the pupil can reasonably learn, but crammed with as many towns as the map itself can hold. About seventy-five per cent. of the towns are never learnt, and never can be learnt. You can't see the wood for trees. The hundreds of petty names deprive the engraver of all chance of showing the plastic form of the country, and of giving its true orthography. How differently they manage these things in Germany may be seen in the small atlas of Lichtenstern and Lange, and in the larger atlas of Ewald.

The fact is, the aims of the gazetteer and of the atlas-maker are the very antipodes of the aims of the teacher and of the school-boy. A good school-geography is not to be made by merely abridging a gazetteer and a commercial map. Such an abridgment ends in a result like Mr. Mackay's book; it is a dry

skeleton; it is a collection of empty boxes, into which much may be put, but into which nothing ever is put. The error arises from the vulgar worship of facts. You, gentlemen, as teachers, know very well the real value of facts. So far from facts having any value in themselves, you know that it is only the relations between facts that are of any value. "A fact in itself," says Schelling, "is nothing."* It is because in languages like Greek and Latin, the facts are reduced to the minimum, and the relations between the words rise to the maximum, that these highly organized languages, and languages like them, are of such enormous value for training. The thinking power of the boy is kept always on the stretch—his attention must never flag, or he goes wrong; and the whole matter is permeable to thought. When a sculptor cannot dominate the material in which he works—cannot *inform* it—the result is so much lifeless matter. But in this kind of "geography" there is hardly even the beginning of life; if it is *protoplasm* at all, it is protoplasm of the lowest and most inferior kind. It is nothing to me that there are millions of men in China who are born and who die like so many gnats; but it becomes something to me if I, or the country I live in, can establish a relation with the empire of China.

I have seen schools in Scotland where the geography classes could—every member of them—point out at once on the map scores of places, as fast as their names were called out by the master; but the names of these places were, and remained, only names. They knew nothing about them. This, it is plain, was the merest waste of time. The teaching power—the power of drill—spent in arriving at this dreary result, might have been employed in something that would have been useful to them. I once had a map of Norway, which contained the name, not only of every town and village, but of every farm-house and summer-saeter, in the whole country. To learn every name in this map, would only be the logical carrying-out of this abominable system—which has the effrontery, moreover, to claim the title of *method*. And I have been in training Colleges, where the lists of exports and imports were learned by heart by the students—without the smallest attempt to connect them with the country.

It is somewhat amusing to observe what odd collections of *chiffons* these gossip-collectors, who call themselves geographers, sometimes happen to make. Their industry belongs to the magpie order; anything glistening attracts them—and they are off with it in their bills. Sometimes a place is "celebrated" for something; sometimes another place is celebrated because it has nothing to be celebrated for—just as the family of Sir Leicester Dedlock was "chiefly remarkable for having never done anything remarkable for five hundred years." Thus, New Plymouth is "celebrated" for "having *no* good harbour;" as the Irishman's innocence rested on the testimony of several hundred persons who

* "Wer keine rechte Theorie hat, unmöglich auch eine rechte Erfahrung haben kann, und umgekehrt. Die Thatsache an sich ist nichts."—Schelling, *Zeitschrift für specul. Physik*, 1800.

had *not* seen him steal the spade. Let us go to the larger book—the Manual—for some examples:—

“Epinal is noted for manufactures of lace and embroidery; St. David’s, for a cathedral and a bishop’s palace; Torquay, as the resort of numerous invalids; Furnes, for an active trade in cattle; Irvine, for book-muslin and jaconets; Tortosa, for sturgeons and lampreys; Flensburg, for an active general trade; Detmold, for the reigning prince (who is not active); Heidelberg, for its forty-five professors and seventy-eight teachers; Modon (in Greece), for a few remains of antiquity; Vasarhely Sombo (in Hungary), for wine and tobacco; Oristano, for its exports of corn, salt, and fish; Thun is renowned for its romantic situation; Forsano, for mineral baths and various manufactures; Christiansborg (in Guinea), for being ceded to England in 1850; Kedge (in Beloochistan), for being now greatly decayed; Calpee, for paper and sugar-candy; Lynn (in the United States), for sea-bathing and shoes; Maracaybo, for a college and an active trade; Talca (in Chili), for being a small town connected with the capital by a railway; Williamston (in Melbourne), for being an active, bustling place; Guildford and York, for being small settlements in the interior; Murcia, for being a large city; Kniphausen (in Oldenburg), for being a mere village; New Plymouth (in New Zealand), for being picturesquely situated, and for possessing *no* good harbour; Tora and Ava (in Japan), for having never been visited by Europeans; Burg (in N. G.), for woollens, glue, and snuff.”

Mr. Mackay has given *no* method—not even a business method. Of a scientific method—not the slightest vestige. “Facts shot here”—that is all.

This does not read like a set of extracts from a sane geography, but like the underwood of the groves of Blarney. Let me recall the old lines to your recollection:—

“For ’tis there’s the cave where no daylight enters,
 But bats and badgers are for ever bred;
 Being nurs’d by natur; that makes it sweeter
 Than a coach and six, or a feather bed.
 ’Tis there’s the lake that is stored with perches,
 And comely eels in the verdant mud;
 Besides the leeches, and the groves of beeches,
 All standing in order for to guard the flood.
 ’Tis there’s the kitchen hangs many a flitch in,
 With the maids a-stitching upon the stair;
 The bread and biske’, the beer and whisky,
 Would make you frisky if you were there.
 ’Tis there you’d see Peg Murphy’s daughter
 A washing praties fornent the door,
 With Roger Cleary and Father Healy
 All blood-relations to my Lord Donoughmore.”

This is just as much science as the other; it has the advantage of being a little more agreeable. The connection in both is of the same character.

One of the most misleading influences brought to bear on the teacher is the influence of public opinion. It is generally supposed—why, I don’t know—that an educated man should know where this or that particular town is, where this or that par-

ticular cape is—just because it is this or that particular town or cape, and for no other conceivable reason. The town or the cape not only does not belong to any scientific statement or system, but absolutely refuses to go into such a scientific system—*will not* fall in. But still we have to learn it, because we are *expected* to do so. I remember an instance. When I was at the head of a school, an intelligent parent called upon me one day in a state of considerable mental distress. This gentleman's father, the grandfather of one of my pupils, had been dining with him the day before, and had seized this social opportunity to *Pumblechook* his grandson to some extent. Where was so and so? Where was this place? Where was this other place? And so on, as an accompaniment to the mutton and claret. At last, the poor boy was found out. "Where was Guayaquil?" No answer. Dismay. The family is disgraced; the honour of this branch of it is irretrievably gone. Who was responsible for this state of things? The responsible person was not far to seek. The responsible person was me. Next morning, as I said, I had a visit from the sorrowing papa. He opened his case to me; and I heard it to the end with the deepest sympathy. After I had done my utmost to enter into his view of the question, I tried to point out to him that this ignorance, on the part of his son, of the existence of Guayaquil, might, after all, not have a very serious bearing on the lad's future destiny; that Guayaquil had not bestirred itself very much to make itself known in the world; that not to know Guayaquil, might, under some imaginable circumstances, be even pardonable; and that I would, as soon as possible, take into consideration the whole question of the state of his son's geographical knowledge. This trifling incident is a fair specimen of the kind of "opinion" that exists among the half-educated middle classes. They fancy there are certain marks of an educated man; and that a knowledge of the position and prospects of Guayaquil is probably one of them. They are in a fever if any child of theirs shows a miserable deficiency like this; whilst all the time the thinking powers of their children may be in a state of complete suspended animation.

✓ Mr. Mackay states in his preface, that the chief novelty of what it pleases him to call his System is, that he arranges towns upon rivers or tributaries to which they belong. The tables of rivers and towns, he says, "present at once the most original portion of his Manual, and the fullest exhibition of his peculiar method." The utter uselessness of these tables is evident from one glance at the table of the rivers and towns of Spain and Portugal. In that table we find dozens of rivers, and scores of towns, that can neither be learned nor remembered. But the method? And the originality of it? And the utility of it? It is no method at all. What, gentlemen, is a method? It is a procedure conducted in the light of a guiding principle, and subjected at every step to tests from experience. But this method, as a method in teaching, breaks down the moment you apply it. Besides, the life of nations is more and more leaving the banks of rivers, and is taking to railways and other artificial means of communication. Much of

the traffic, and almost all the travelling, has entirely deserted the rivers. It is the merest rubbish to say, that the stringing of towns on rivers and their tributaries is a system,—that such a notion rises to the dignity of a scientific or classifying principle,—and that such a mode of presentation can lay the slightest claim to the high title of *method*. It is a useful enough plan for topography; but, as presented in Mr. Mackay's book, it is a rational suggestion driven to a pedantic extreme—a mild hobby ridden to death—an educational Juggernaut that rumbles homicidally over the intellects of young people, and leaves them either crushed out or badly crippled in the rear. As regards the originality of it, it is now about two generations old; and it is, in some respects, worse than useless, for it bars the way against the introduction of a true and intelligent method.

But let us do the fullest justice to Mr. Mackay. He has written, by dint of enormous industry, which has extended over many years, a book which is by far the best collection of geographical facts in the language. That is in itself a service to those who are engaged in the work of instruction. But that is not the greatest service he has done for you, gentlemen. He has, by this elaborate development of what he calls his *peculiar method*, furnished a perfectly conclusive practical proof of the uselessness—and more, of the great hurtfulness—of this system of teaching. His book is a thorough-going *reductio ad absurdum*. He has elevated the names—that is, the mere accidents of Geography—to the highest place; and the result is a book that is fearful to look at, and impossible to work one's way through. Instead of setting our feet in a plain path, and establishing our goings, he leads us into a trackless jungle, and leaves us there without guidance and without hope.

What kind of mental habits would the thorough study of this book produce in a boy? Everything is dissociated from everything else. A boy might read through this book without even so much as finding a hint that this globe was the scene of law—of irresistible law, in presence of which the individual is but a straw or a leaf in the wind. Except, indeed, what Mr. Mackay calls the "important physical law," that all towns stand either on rivers or on the sea coast. And this is Mr. Mackay's only idea, and almost his only illustration, of law! The learner will get to believe that this world is not a *cosmos*, but simply a *chaos*,—that everything happens so to be,—that geography is a collection of local and historical gossip,—and that everything might have been otherwise, if only it had so happened. Instead of learning the relations between cause and effect in the existence of towns,—as that Liverpool is built upon cotton, Manchester upon cotton and coal, and so on,—he is told that Burg (wherever it is) manufactures snuff. The book is crammed full of valuable facts; but they are not brought into connexion with each other. A scientific relation is not even suggested. Facts, facts, facts,—that is all. How these facts lead up to a law,—what is the method pursued in the discovery and proof of a law,—of all this there is almost no hint. Instead of being a light to guide the pupil, science and research

are here set to work as mere hodmen, to heap together useful and useless facts in one incondite mass—they are set to grind,

“*Eyeless in Gaza at the mill with slaves.*”

And the pupil is made a hodman's apprentice. What mental habits can he get from his work, except habits of aimlessness, desultoriness, and irregularity? He must become the sport of every random and momentary impulse, always jumping about from this piece of gossip to that piece of gossip. Like the sparrows in the eaves,

“As restless as light autumn leaves
Blown by the fitful rainy wind.”

From the point of view of the teacher, the book is bad in its aims, bad in its ways and methods, and bad in its results.* An unprejudiced person would believe, after reading (if he could read) this book, that geography is merely a heap of gossip—a galimatias of odds and ends—a jumble of figures and dates—a basket of fragments and *chiffons*. It is here, there, and everywhere, all in the same page—sometimes darting into history, now taking a glance at physical science, then making a short excursion into commerce and statistics, and again hurrying for a short peep into mathematics. (It is what you will, what you won't, what you want, and what you don't want, what nobody wants or possibly can want—all in the same breath.) It is the sweepings of all the sciences, all history, and all human research; and it pretends to be more important to the schoolboy than any of them.

It is easy to find fault; it is more difficult to construct. I have, in the preceding remarks, been pleading the cause of the Teacher and of the Pupil as against the Gazetteer and the Book-maker. Not that I have been blind to Mr. Mackay's merits. The book is decidedly the best geography we have. The only thing absent in it is—*thinking*. If the earth is not framed by a reasoning power, then Mr. Mackay's book is a good geography. But it does not help the teacher; it does not guide him or help him to put into the heads of his boys a living and intelligent idea of the globe we live on,—it merely drills him in a kind of learned ignorance, a dry-as-dust pedantry. The general chapters introductory to the continents are admirable—that is, they are full of most valuable facts. I know nothing like them anywhere.

The first thing I would advise the teacher to do is to ask his boys to burn their copies of the Elements. This, I think, they will be very happy to do. Let the teacher, however, keep a copy of the Manual for himself; he cannot get any book with half so rich a store of important facts, in spite of the thousands of useless names in it. Let him put no books at all into the hands of the boys. He will thus gain one important advantage, the value of which it would be difficult to overestimate. He will have the

* There is all the difference between what this book is and what it might be, that there is between the old word *inform* and its modern representative *information*.

curiosity and natural appetite for knowledge that exists in every child all on his side. When a friend asks you to a "friendly dinner," you take your seat, grace is said, and your friend opens the conversation with "You see your dinner," your spirits cannot help falling a little. The dinner may be a very good dinner, the mutton unexceptionable, and the claret in perfect order; but you don't like to see it all before you, you don't like that nothing should be left to the imagination. But, how if you were living with your friend, and you had put into your hand on your arrival a book giving the *menus* of all the dinners of the year? And how if they were all bad? Well, a book is put into the hands of the boy which tells him what his intellectual fare in this or that subject is to be for the next year or two; and the prospect is not enlivening, it does not create appetite. But, if he has no book, he does not know what is coming; and his mental appetite is stimulated in the healthiest way.

As regards the junior classes, I should strongly recommend him to use the system of Dr. Stössner,* in whose elements he will find the maximum of system and the minimum of names. He begins with the smallest elements, and builds everything upon these by the smallest increments. Or, let the pupils have blank outline maps, and fill up the names, as they occur in each lesson. The mountains, rivers, lakes, and other physical features, may also be filled in as they come up. The mountains may be most easily and most practically indicated by simple lines, with a breadth in proportion to the height of the axis. The slope of the country will be observable at once by the flow of the rivers. Should he learn the names of capes and bays? The answer to that should be, I think, that he should learn no names whatsoever, merely as names—but that these are certain to occur in some connexion or other. He must take, as his aim, the exact opposite of Mr. Mackay's. No names, unless they come in naturally in illustration of the science.

Another point of importance is, that he should always have before the pupil at least three maps—one physical, one political, and one a railway map.† If he can add a commercial map, so much the better. These three will play into each other; and the constant comparison of the three will compel the pupil to think at every step. By constantly going from the physical to the railway map of Europe, for example, he will be able to ask between two and three hundred questions, which the pupil will be able to answer "all out of his own head," and without reference to books. The crowding of the railways in England and Belgium, their sparseness in Russia and Spain—their stoppage at the Alps—their splitting into two on each side of the Rhine-valley and of Italy—their almost complete absence in Turkey,—these and the probable causes of these facts will keep his mind pleasantly going.

Or the teacher may lay in a stock of Sydow's‡ excellent little

* Williams and Norgate.

† Franz's Railway and Steam-boat Map of Europe. (Williams and Norgate.)

‡ Williams and Norgate.

series of maps—his mountain-maps, his river-maps, and his outline maps; and, with Mackay in his hands, he can make his pupils fill these up with the symbols of physical, or of political, or of commercial, or of historical geography, as he pleases. The lessons he gives, the pupil can take notes of. It will almost be unnecessary for them to get up the substance of these notes by heart; for the constant questioning, the constant examination and cross-examination necessary to illustrate the statements made, and the laws laid down, will burn in on their memories every name and position that may be wanted.

So much for the apparatus and mechanical pre-requisites for geographical teaching.

More important questions arise. The first is, What goal is the teacher to make for? and the second is, How is he to get there?

The goal to be aimed at is, evidently, to gain an intelligent conception of the globe we live on, and the laws that regulate its goings. In the case of Junior classes, it will be the work of the teacher to create an interest in this conception, so that future instruction may meet with a kindly welcome. And, fortunately, the means of creating this interest lie thick around him. We have thus a natural, though not a hard, line of division between geography for the Junior and geography for the Senior classes.

For the Junior classes, I should recommend that stories and descriptions should be kept to. Every circulating library, every magazine almost, gives ready to one's hand the means of exciting curiosity about the world. These stories and descriptions should go in pairs, so that the striking contrasts between the two should print themselves on the susceptible mind of the learner. We could thus get contrasts of

A Tropical Scene		An Arctic Scene
and	and	and
Tropical Life,		Arctic Life.
Of the Shadowless Land,	and	The Sunless Land.
Of the Tearing-down Force	and	The Building-up Force
of Water,		of Fire.
Of the Maximum of Rain and		The Minimum of both in
Heat in the Selvas,	and	Siberia, and the Maximum
		of Heat and the Minimum
		of Moisture in the Sahara.

Many other contrasts will suggest themselves rapidly to the practised teacher—between plateau and plain, altitude and latitude, the snow-line at the Equator and the snow-line at the Arctic Circle, longest coast-line and shortest, and so on. Then let the pupil hear descriptions of the animals of the tropics and those of the Temperate and Arctic zones,—of the enormous wealth of vegetable life in the Tropics, and the miserable poverty of the Arctic regions. The baobab and the dwarf-fir stand at almost opposite poles.

From these general descriptions, he can come down to the life

of man, and the organization he has been able to accomplish for himself in the world. Of course his own islands come first; and there seems every reason for giving him a complete knowledge of the physical advantages and disadvantages of Great Britain. But this will not be done with success or with intelligence, unless the teacher uses the method of constant comparison. Why is England the most commercial country in the world? It is in the very middle of the land-hemisphere. What is the New Mediterranean? The Atlantic. What has made London rise from a million inhabitants in 1801 to three and a half millions in 1869? It is that London is no longer built merely upon England, but upon the whole English Empire. Is her face turned now to the East or to the West? Most certainly to the West; if she looks East, it is for the purposes of defence and resistance, not for the purposes of growth and development. Does the commercial life of England rest on her rivers and canals, or on her railways? On the latter. What towns have been created by coal, iron, and industry? These and many other questions will best be answered when the similar or dissimilar circumstances of other countries have been compared or contrasted with those of Great Britain.

Further, the young pupil should never be left to the mercy of abstract ideas. To him the words latitude and longitude have no meaning; they are merely markers of distance, with which he is in no way interested. But the term *latitude* can be easily translated, and ought to be translated for him into the most practical of facts. For what is latitude? It is in reality the expression in numbers of our relation to the sun. If we know the latitude of a place, this knowledge in fact turns itself into the knowledge of the angle at which the sun's rays fall in a particular season, the percentage of rays that reach the earth, and therefore one essential element of the climate. Add this to the height of the land, to the rain-fall, and the distribution of this rain-fall—and you pretty well have the climate.

The topography of the countries of the world can easily be learned by him—as all topography ought to be learned—in connexion with the history of the country he is learning, its present state and constitution, and its relations to the other countries of the world. It is useless for him to learn, as an objective and separate lesson, the position of New Orleans, Paris, St. Petersburg, Vienna, Trieste, and so on—if these names will come up again and again in the connexions of history, climate, commerce, or politics.

Let us suppose that, by these and similar means, the junior pupil has got some kind of picturesque notion of the world he lives on, and also a few exact and clear ideas with reference to numbers and distances and the climates to be found at these separate distances; what more must be done for the senior pupil?

He is probably ready to take up the subject in a more scientific way—he is probably prepared to look upon the globe as the theatre on which the grand laws which are the thoughts of God exhibit themselves in freest play, and express their power in

plants, in animals, and in man. He might even, if old enough, get to some insight into the political forms of organization, and into the different temperaments and dominating ideas of the various families of men.

The best book for him would probably be the *Comparative Geography* of Carl Ritter;* and he could read Mackay into Ritter between the lines. Ritter would not only give him a straight and interesting path to follow, but would provide him with a real and scientific method; and he would find in Mackay the facts which illustrate and explain the deductions and general statements set forth by Ritter.

As apparatus for carrying out this method, he might provide himself with blank hemispheres, and fill into these all the physical and political symbols—the isothermal lines, the marks of ocean currents, the heights of the land, the depths of the ocean—and all the other organic sides of the earth's life that Ritter and Mackay may set him thinking about. When he comes to the discussion of commerce, these hemispheres should contain maps of the oceans, on which he might trace the tracks of the ocean-steamers and mark the number of trips made in a year and the tonnage carried either way annually. This would give him a practical view of what are called exports and imports. A boy reads in Mackay that the exports of France in 1852 amounted to £67,000,000, and the imports to £57,000,000, and how these amounts are made up. But such facts want translation into what is to him real and intelligible. And this translation can take place only by help of the dictionary of the country itself and of the other countries it trades with. By the imports of Britain we mean—What does Britain want? And in this question are included many minor questions of latitude, altitude, climate, winds, waters, and so on. When we ask about the exports of Britain, we ask, in fact—What does Britain do? How does she spend her available time? What are the materials she works in? Why does she work in these materials and no others? And these questions give rise to many others about history, and internal resources, and race and language, that are of the greatest interest to everybody. Then these questions run into the larger one—How does the commerce of the world run? What directions do its currents take? How broad and deep are they? What is the purpose of the labour of the world? It is probably to make every country a sharer in the natural or acquired advantages of every other country on the globe.

Instead of going out of his way to look for antiquated and expensive books—which teach the Geography of the world as it was, not as it is now—he can find under his nose books that will teach the Geography of the present day—of the present state of the world—in a much more interesting, lively, and practical way, and at much smaller cost. With a book like Whitaker's *Almanac* for 1869 (which costs a shilling), or even with an old foreign Bradshaw, in the hands of his pupils, and with Frederick Martin's

* Translated by W. L. Gage (Blackwood).

Statesman's Year-Book* in his own, he will be able, with almost no expenditure of thought or of time on his own part, to make his lessons on commercial Geography extremely interesting, and also very useful. And the enormous amount of "information"—generally up to the latest dates—that the pupil will find in Whitaker, will awaken his curiosity and interest on many subjects about which the ordinary "Geography" is completely silent. He will learn, for example, about the nature and organization of our own and foreign governments—about national income and expenditure—about the kinds and amount of trade done between different countries, and a hundred other things. And this knowledge can be sharpened, classified, supplemented, and corrected by constant reference on the teacher's part to the pages of Frederick Martin. This, of course, relates only to a part of Geography. A *real* notion of what the world we live on is,—how it is built up,—what the relation of man and his life is to the life of the globe,—on these points he must look elsewhere.

But I begin to feel that this lecture is in danger of becoming much too long; and I shall therefore put what I have to say more in the form of short paragraphs. This will have the advantage, perhaps, first, of making my meaning clearer, and secondly, of concentrating the point of attack, if my views should differ with your own.

1. Do not teach map-drawing. It is not a science, and it is as certainly not an art. But it runs away with a large quantity of time; and the return is very small.

2. Never mention a name merely as a name—that is, out of its proper connexion. This is against modesty as much as against good taste.

3. Never mention a fact simply as a fact. Any one fact must have a relation of one kind or another to other facts; and the *ensemble* of these facts will probably point to some law, or, at least, to some general statement.

4. Teach as little as possible, but with the maximum of clearness; and always work up the old with the new.

5. Proceed by the method of constant comparison. The value of any statement is never known unless it is compared with other statements. The statement that France has a population of 30 millions is almost meaningless, unless we compare, first, it with its own size, and then with the size and population of other countries.

6. Make for your pupils a short table of standards. In this there may be, *e. g.*,

A standard of sizes;		
"	"	distances;
"	"	population to the square mile;
"	"	angle of sun's rays;
"	"	length of longest shadow at twelve on
		shortest day;
"	"	altitude.

* Macmillan & Co.



Belgium might be a good unit of size; and the distance from London (or from one's own town) to Brighton a good unit of distance.

7. Do away with the separation between physical and political geography. They are inseparable parts of one great whole; but as they are now taught, they are like the warp and the woof of a web of cloth lying separated and apart from each other, while the intellect of the learner is left unclothed.

8. Proceed, wherever it is possible, by the guidance of the law of cause and effect. For example, the exports of a country are the spare products of that country. The questions then arise—Why does the country produce these, and not other things? Why does she send them away? What other countries want them; and why?

9. Translate all abstract ideas into concrete facts. Thus latitude is simply relation to the sun; longitude is distance by time; altitude means a practical diminution of temperature.

10. Fill the learner's head with as many contrasts as possible,—between places where the maximum of heat is found, and where the minimum; between deserts and fruitful plains; between forest scenery and grassy plain; between crowded city-life and the semi-desolation of Norway or of Siberia.

11. Proceed—wherever that is possible—by the deductive method. This place is near the Equator, at such a height above the level of the sea, with such or such a supply of rain—what would you expect? South America has its north coast line at right angles to the trade wind, and its south coast line also at right angles to the trade wind, and its condenser, the Andes, as far back as it can be put, what kind of river would you expect? And where would you expect to find it? And is it where you looked for it?

12. Divide the blank hemisphere into narrow belts. Take for each of these belts a typical plant, a typical animal, and, if you find it possible, a typical man. Thus you can compare each of these types with every other—those nearest each other with each other, and those at opposite ends of the gamut with each other.

13. Let an altitude diagram always lie beside a latitude diagram. Thus one can compare, step by step, the flora of the Alps with pretty much the same flora stretched out into space from the centre of Europe to the Arctic Circle.

14. Don't let your pupils learn anything in Geography by heart. If it does not remain naturally in their memory, that only shows that you have given them a kind of Geography not adapted to their years—and you must begin somewhere else.

15. Let interest be the motive power in all you make the pupil do. Either the interest which arises from the subject-matter, or from the innumerable relations existing in that subject-matter.

The world is choke-full of the wonderful and the interesting, from the equator to the poles; and it seems the height of absurdity to give to those who want them least only the driest details;

to prevent their reading in the book of Nature itself, and to insist on their getting by heart only the index. If this or some such system of teaching Geography be pursued, the pupil may, perhaps, be ignorant of the fact that Santa Marta has a cathedral, or that Burg sells snuff, but he will probably have in his head a rational, clear, bright, and living idea of the world he lives in.

